

FIG. 1

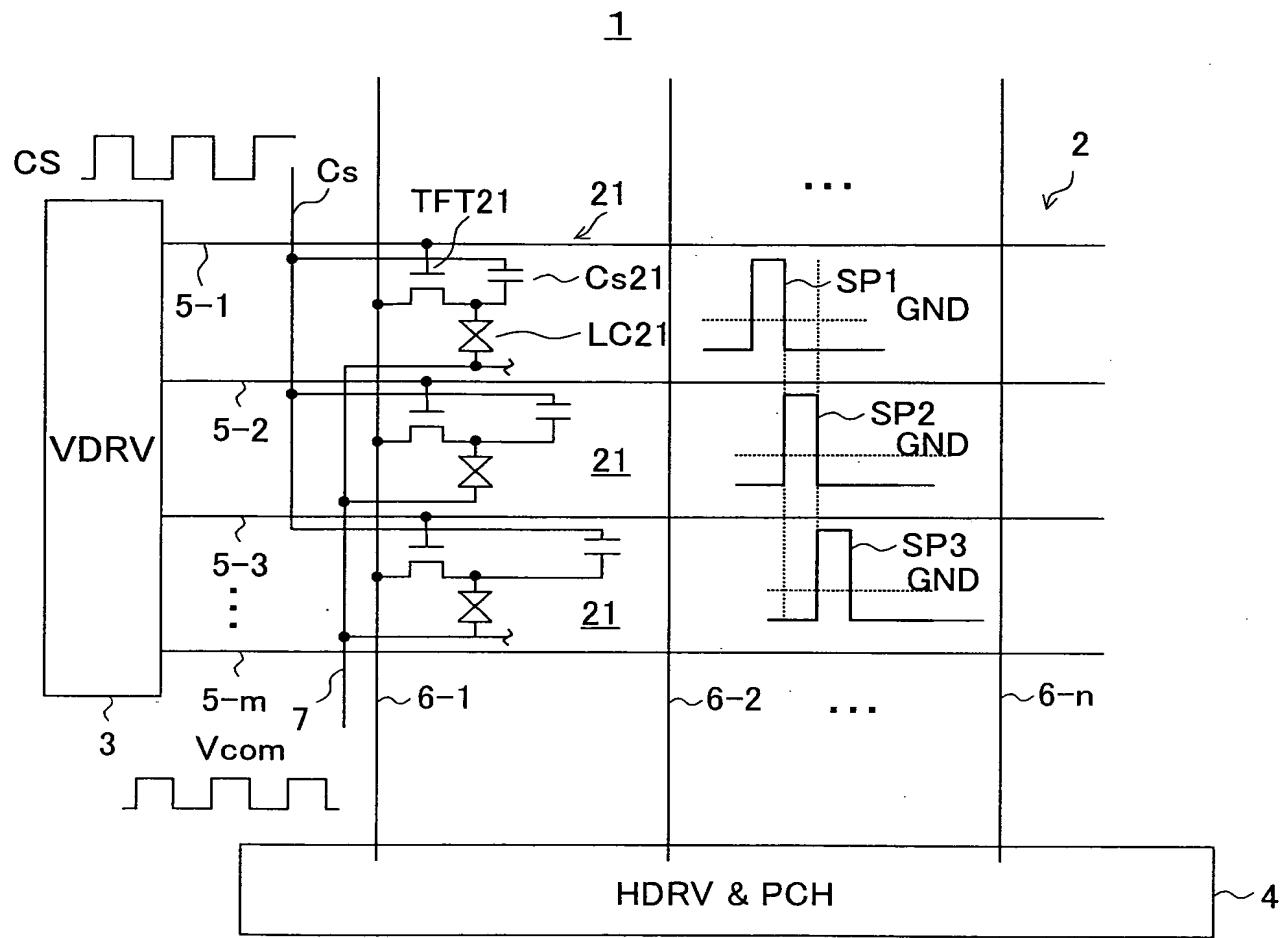


FIG. 2

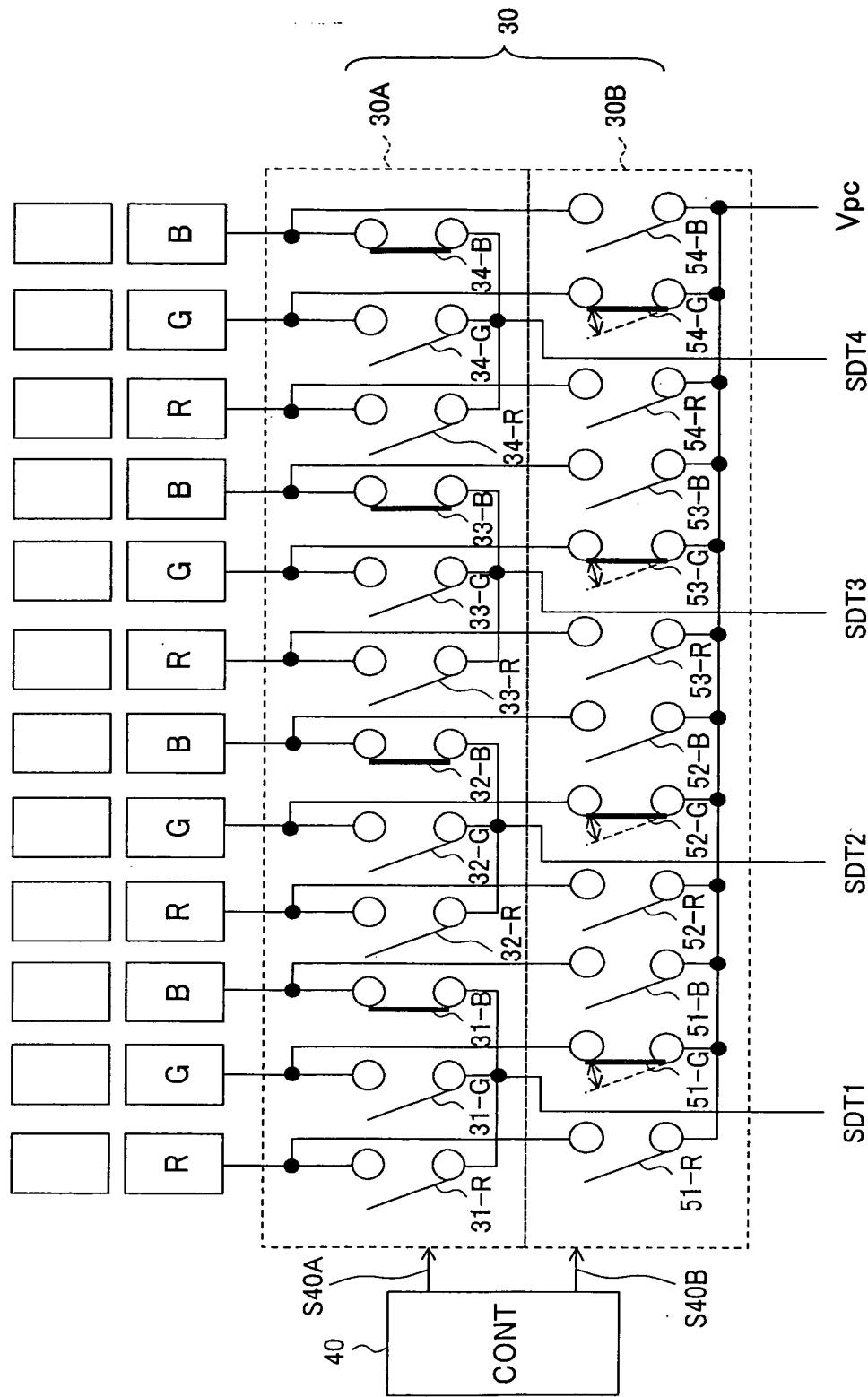


FIG. 3

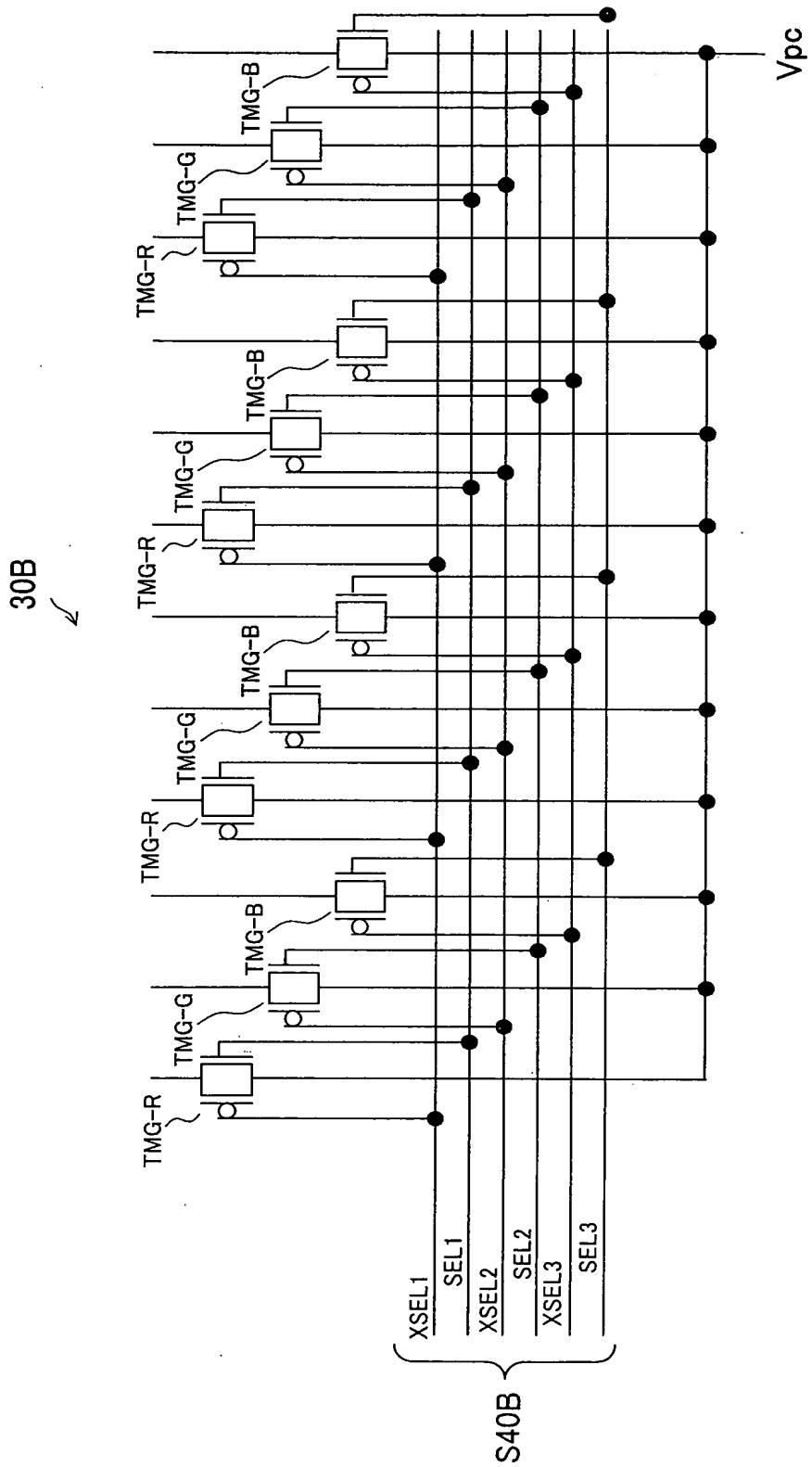


FIG. 4A

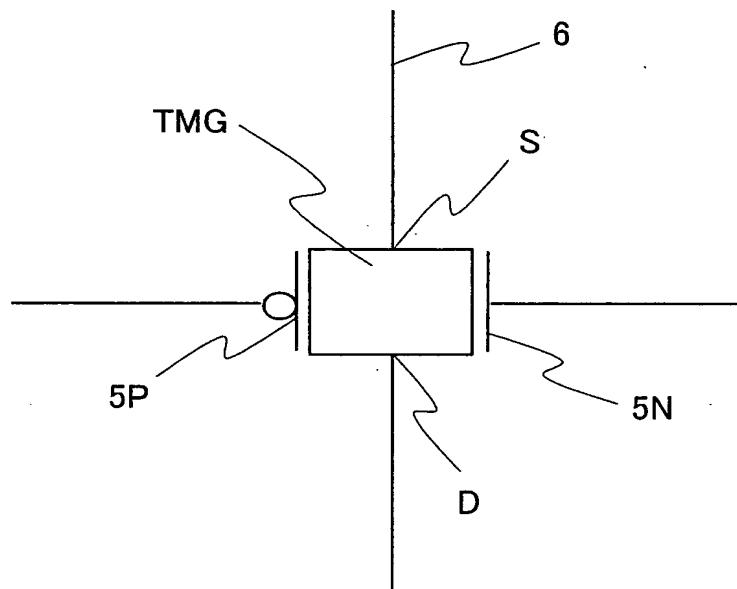
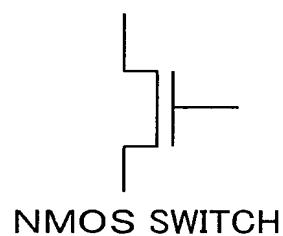


FIG. 4B



NMOS SWITCH

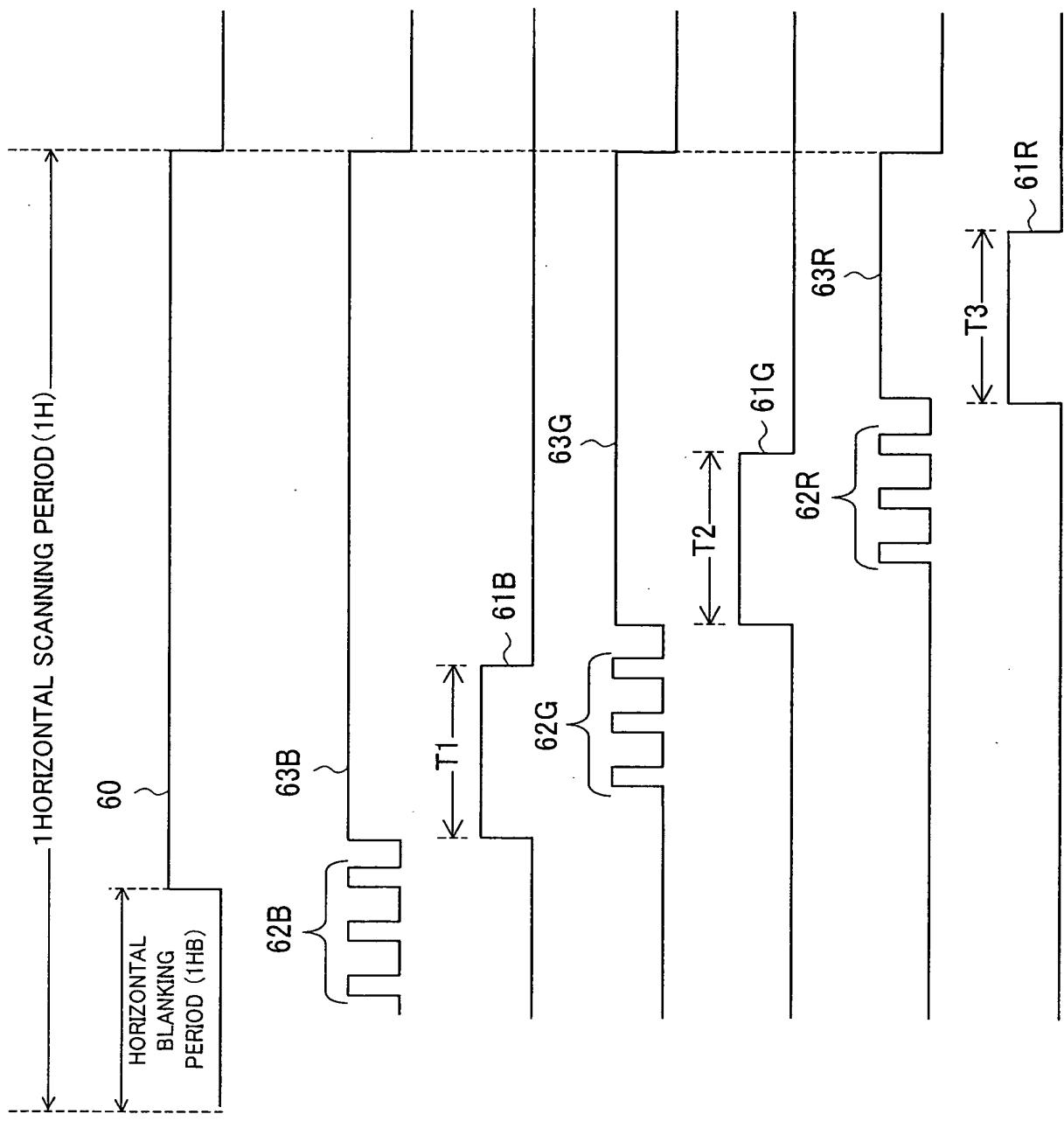


FIG. 5A

FIG. 5B

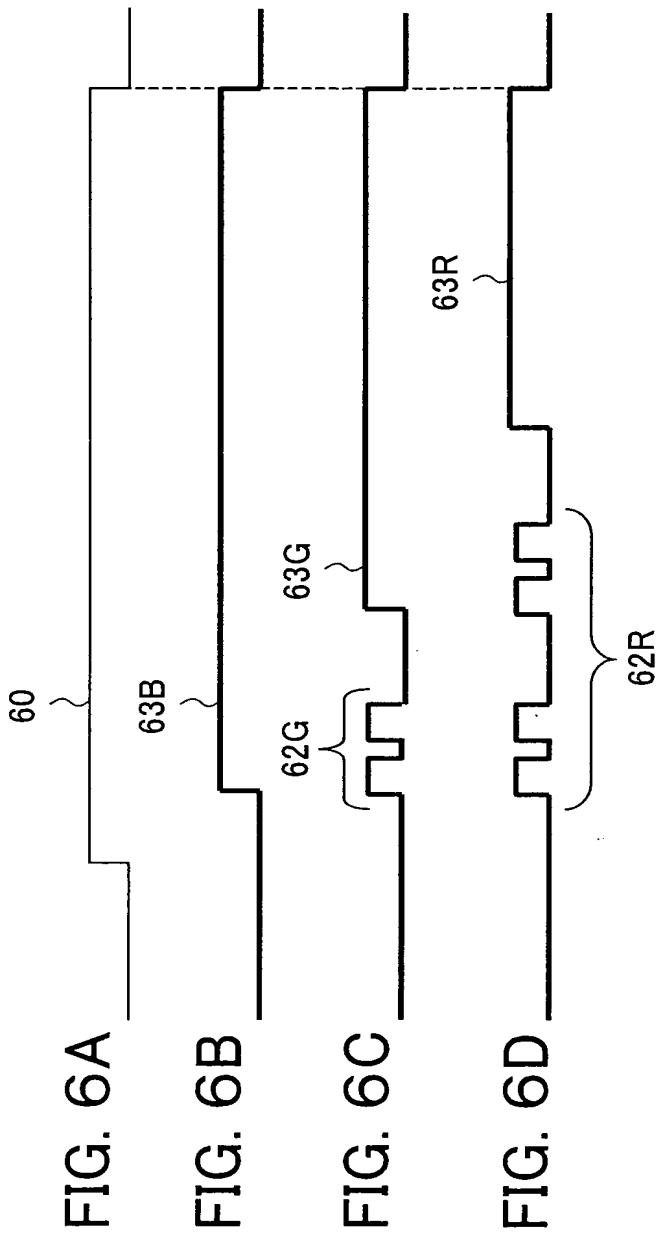
FIG. 5C

FIG. 5D

FIG. 5E

FIG. 5F

FIG. 5G



VOLTAGE
↑

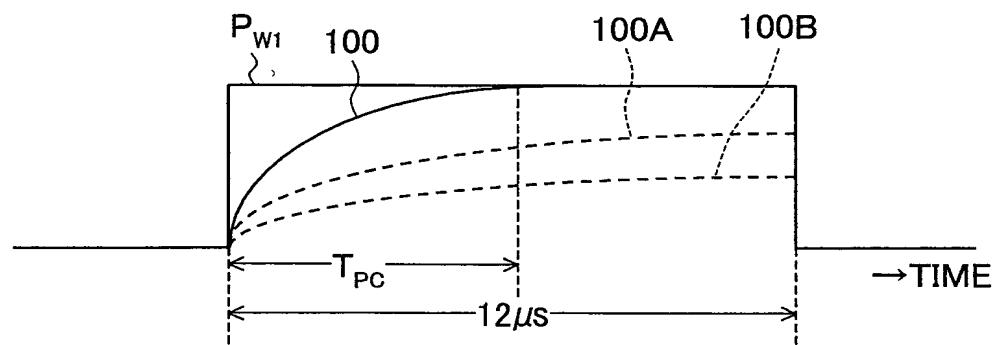


FIG. 7A

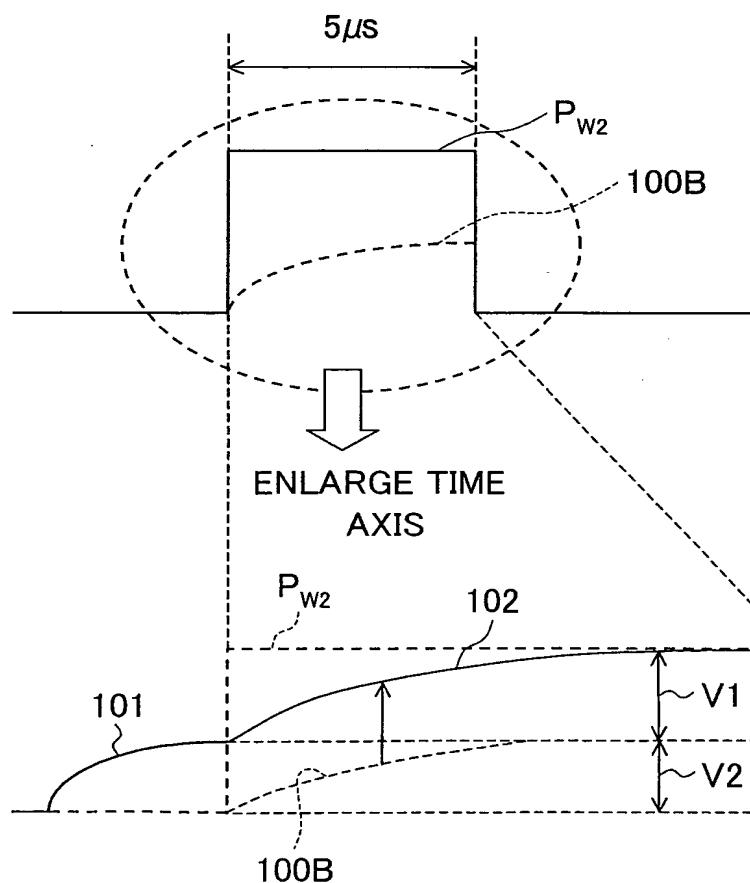


FIG. 7B

FIG. 7C

FIG. 8A

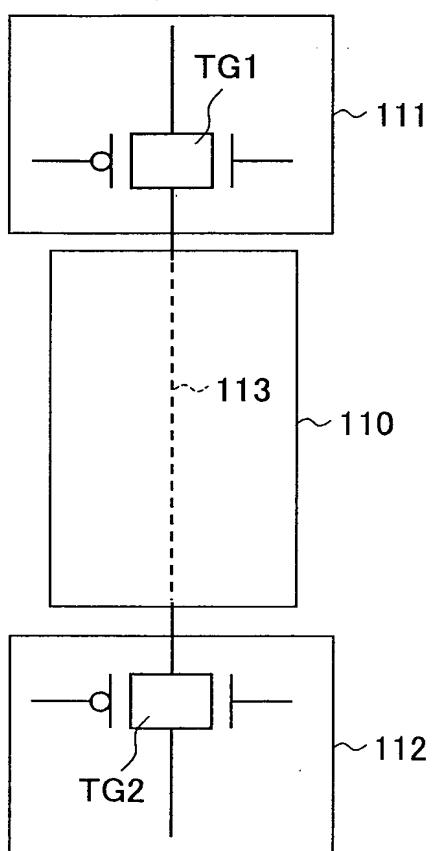


FIG. 8B

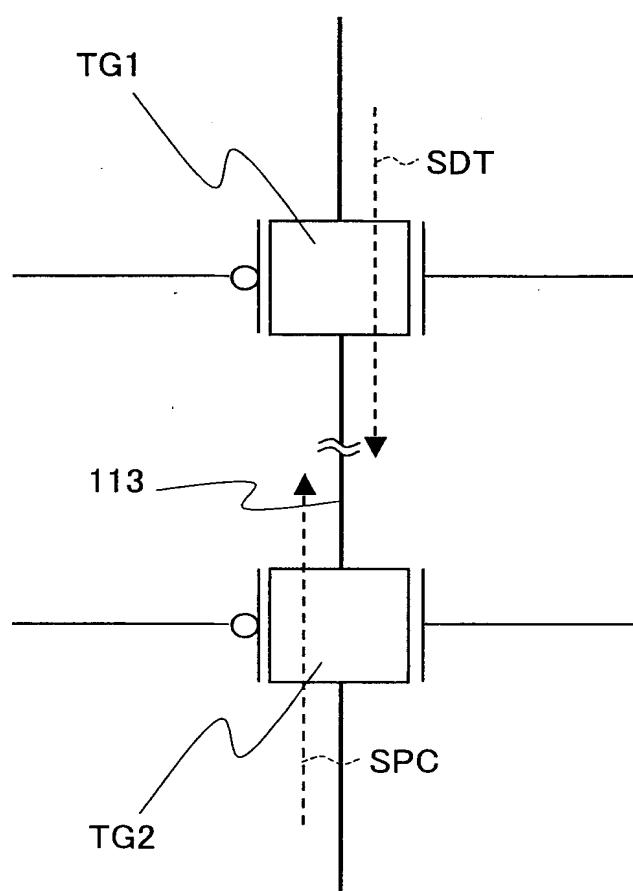
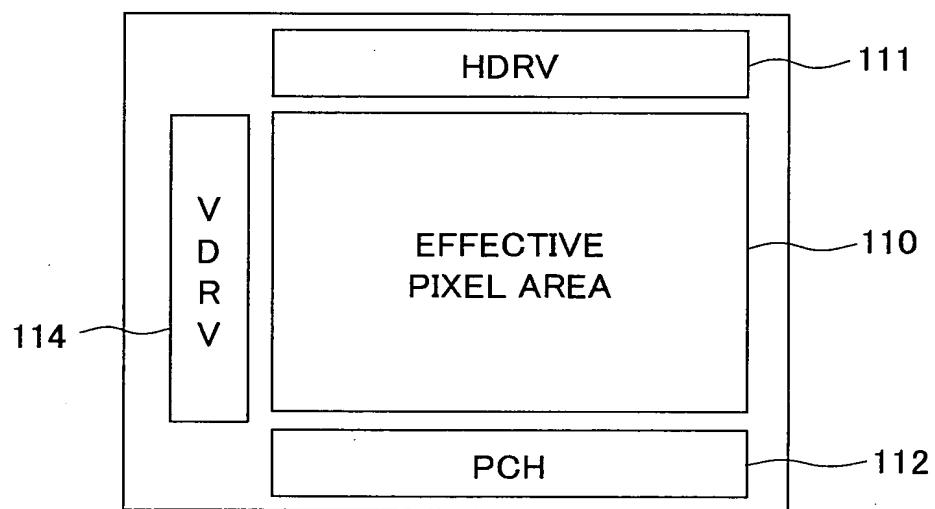


FIG. 9



LIST OF REFERENCES

1: liquid crystal display device
2: effective pixel area
3: vertical drive circuit (VDRV)
4: horizontal drive circuit equipped with precharge
function (HDRV&PCH)
5P: pMOS transistors
5N: NMOS transistors
5-1 to 5-m: scanning lines
6, 6-1 to 6-n: signal lines
7: Vcom supply line
21: pixel circuit (pixel)
30: selector
30A: first select switch circuit
30B: second select switch circuit
31-R etc., 51-R etc. (and TMG): select switch (transfer
gate)
40: control circuit
60: horizontal pulse
61B etc.: pixel data pulse
62B etc.: precharge pulse
63B etc.: permission pulse for supply of pixel data
Cs: storage capacitor interconnect
TFT21: pixel select element
LC21: liquid crystal cell, Cs21: storage capacitor